

Notice of Allowability

Application No.

10/577,044

Examiner

Cindy D. Khuu

Applicant(s)

SHIGEMATSU, RYOHEI

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.
2. ☒ The allowed claim(s) is/are 25-48.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 2/6/07 & 4/24/06
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given by Mr. William L. Brooks during a telephone interview on 12/7/07.

The application has been amended as follows:

Drawing:

Attachment Markup sheet of Fig. 1, indicates the typographical error to be corrected.

Specification:

Paragraph 0012, line 1, change "According to the invention of claim 1, the first" to -- The first --.

Paragraph 0013, lines 1-2, delete "according to claim 2".

Paragraph 0014, lines 1-2, delete "according to claim 3".

Paragraph 0015, line 1, change "According to the invention of claim 3, the angle" to -- The angle --.

Paragraph 0016, lines 1-2, delete "according to claim 4".

Paragraph 0017, line 1, change "According to the invention of claim 4, the slit" to -- The slit --.

Paragraph 0018, lines 1-2, delete "according to claim 5".

Paragraph 0019, lines 1-2, delete "according to claims 6 and 7".

Paragraph 0020, lines 1-2, delete "according to claims 8 and 9".

Paragraph 0021, lines 1-2, delete "according to claims 10 and 11".

Paragraph 0022, lines 1-2, delete "according to claim 12 and 13".

Paragraph 0023, lines 1-2, delete "according to claim 12 and 13".

Paragraph 0024, lines 1-2, delete "according to claim 14".

Paragraph 0025, line 1, change "According to the invention of claim 14, the" to -- The --.

Paragraph 0026, lines 1-2, delete "according to claim 15".

Paragraph 0027, line 1, delete "according to claim 16".

Paragraph 0028, lines 1-2, delete "according to claim 17".

Paragraph 0029, lines 1-2, delete "according to claim 18".

Paragraph 0030, lines 1-2, delete "according to claim 19".

Paragraph 0031, lines 1-2, delete "according to claim 20".

Paragraph 0032, lines 1-2, delete "according to claim 21".

Paragraph 0033, lines 1-2, delete "according to claim 22".

Paragraph 0034, lines 1-2, delete "according to claim 23".

Paragraph 0035, lines 1-2, delete "according to claim 24".

Pertinent Art Cited

The following US Patent Applications reveal the current state of the art:

Tominaga et al. (US 2005/0157289) teach of an angle detecting apparatus (Fig. 5A) comprising:
a sensor (5) provided on a moving portion (3) connected to a fixed portion (2) via an elastic body (4), the sensor detecting displacements of the moving portion that is in an oscillating movement (paragraph 0033).

However, Tominaga does not teach at least a first sensor and a second sensor provided on both ends of a moving portion connected to a fixed portion via an elastic body, the first sensor and the second sensor detecting displacements of the moving portion that is in an oscillating movement.

Hara (US 2007/0112469) teaches of an angle detecting apparatus comprising:
an angle calculating unit (paragraph 0070) that calculates a displacement angle of the moving portion based on the displacements detected by the first sensor and the second sensor and a distance between the first sensor and the second sensor (paragraph 0073).

However, Hara does not teach at least a first sensor and a second sensor provided on both ends of a moving portion connected to a fixed portion via an elastic body, the first sensor and the second sensor detecting displacements of the moving portion that is in an oscillating movement.

Allowable Subject Matter

Claims 25-48 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for the allowance of claims 25 and 40 is the inclusion of the limitation "first sensor and a second sensor provided on both ends of a moving portion connected to a fixed portion via an elastic body, the first sensor and the second sensor detecting displacements of the moving portion that is in an oscillating movement". The prior art of record, taken alone or in combination, fails to disclose or render obvious.

Claims 26-39 and 41-48 are allowed due to their dependency on claims 25 and 40.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Fax/Telephone Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cindy D. Khuu whose telephone number is (571) 272-8585. The examiner can normally be reached on M-F, 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CDK 12/7/07

John Barlow
John Barlow
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FIG.1

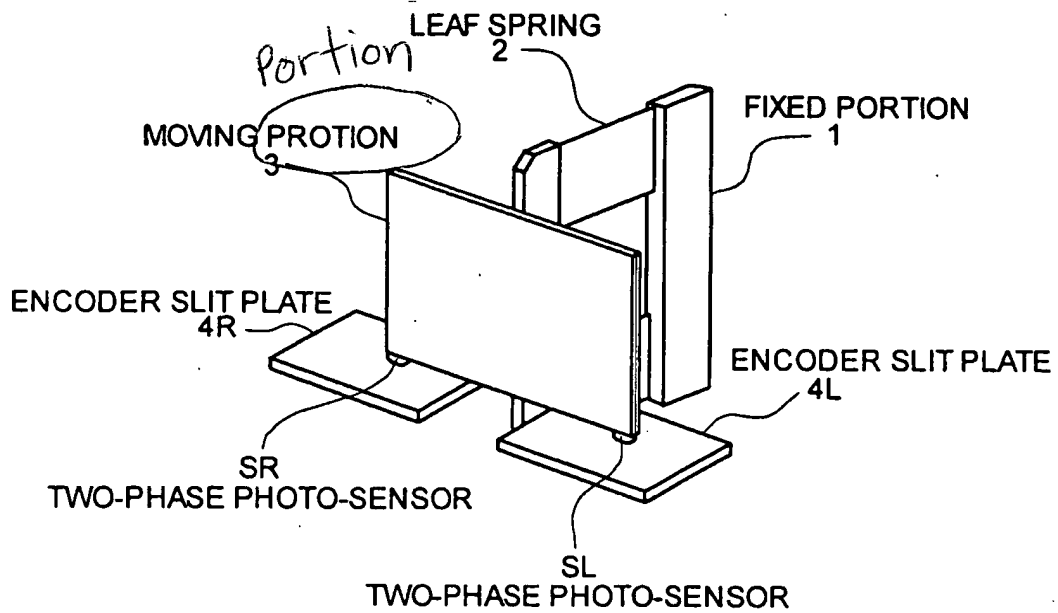


FIG.2

